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July 20, 1921.

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Nature about Boston.

By Ralph Lehmann.

Boston Evening Transcript, Mar. 20 - June 5, 1907.

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March 20, 1907.

Nature About Boston

I.

BY RALPH HOFFMANN

THE Transcript must before long create an ornithological department and add a bird editor to its staff. The duties of this editor should be to keep thoroughly posted as to the arrival of every bird from the north or the south, and to publish his observations so that the readers of the Transcript who are constantly in the field may have the satisfaction of writing to him and announcing that they have seen the birds he mentions a day or two earlier. It is true that at present the Listener cheerfully prints animal stories and accounts of apple blossoms in October, but he already has his hands full laying down the law on all social, religious, literary and artistic questions. No man is omniscient. The first duty of the bird editor would be to have a card printed to read as follows:

Dear Madam—Your letter announcing the presence of a pewee in January has been duly received. You say that you did not see the bird, but that you are thoroughly familiar with its note. We respectfully suggest that the pewee has never been known to occur in New England in the winter months, and that the chickadee utters besides his usual notes a call which closely resembles the syllables pee-wee. Do not be mortified at your mistake; you are the —th up to date.

Ornithological Editor.

A large supply of these cards will be needed and the blank can be filled out by referring to the back files of the Transcript.

It may be some time, however, before this department is created. In the meantime it may be of interest to record in a desultory fashion the observations of one who, by his very inability to keep constantly in the fields offers his readers an unusual opportunity to pride themselves on getting ahead of him.

Ornithologists, like the birds which they study, are creatures of habit. When I left the house on Saturday, March 16, I had no special destination; I wanted only to rejoice in the brilliant sunshine and to find whatever intimations of spring the season offered. I let my feet follow their wonted paths, and almost before I knew where they were taking me, I found myself on a well-known hillside that overlooks the broad basin in which the Fresh Pond marshes lie. A little brook was hurrying down to the plain. Where I stood, it had been led over a little waterfall into a sort of a reservoir. The music of its voice as it fell over the stones, and the play of the shadowy reflections from the rippling water on the walls of the reservoir were a strong temptation to linger; it needed only a song-sparrow on an alder spray to complete the assurance of spring. The slow drip of the melting snow from each stone in the wall explained the vigor and assurance with which the little stream came rushing down the hillside; it had made alliance with the sun, and was now receiving tribute from every snowy bank with a southern exposure.

From the hills in which the brook is cradled, one can look north as well as east, and see the outlines of Monadnock and the Peterboro hills, and the dark masses of forest and the snow-covered pastures on their sides. But today I kept to the warm southern slope, knowing well that any bluebird that might chance to be here, would be in some warm corner, sheltered from the keen northwest wind. It is a pity that one can not be a keen student of birds and still remain unprejudiced in his views of wind and weather. If you are only a human being or a mere lover of the open, you will rejoice in these early March days; the wind blowing over the snow fields of the northwest sets your blood flowing at a livelier pace. But if you are hungry for the first spring bird, you know that the search is almost hopeless while the northwest blows, and you welcome a morning when the warm south wind gradually veils the distant horizon with haze.

Turning my back, therefore, on the north and its mountains, I looked out over the plain toward the multitude of buildings which have gradually spread out over every hill from the fells on the left to the Newtons on the right. From the lower mass of shining roofs rise frequent taller towers, each a memorial of some phase of man's activity or of some deep human interest—monuments to patriotic devotion, domes and spires of every creed from the oldest to the newest, and at present most advertised, seats of learning and of government, tall chimneys, grain elevators and water towers—all these catch the eye along the sky line. A history of our civilization in all its present complexity might be written with these towers as texts. At night they fade from the landscape, and only the myriad sparkling lights show where the cities lie. The eye no longer distinguishes the great buildings which mark the heights of human attainment. The multitude of lights suggest only a great community of human beings struggling through their daily round of homely cares and sorrows, joys and fears.

All this time no welcome "purity" had fallen from the blue sky; no flutter of blue wings had marked the end of the winter famine and the beginning of a season of new delights. But from a neighboring field came a sound that reminded me that this year at least we have not suffered from a winter famine. The sweet, plaintive call of a red-poll linnet, separated, perhaps, from his flock, came across the fields and a little later the tchit-tchit of flying birds. A large flock of red-polls were rising from a forest of pigweed which has been their granary and dining table for at least a month. There are two sides to this question of slovenly farming. I much prefer that some of my neighbors should leave their weeds standing; it is very important that the red-poll linnets should have every inducement to stay in this neighborhood.

The little hornets rose in successive flocks from every corner of the field and flew chittering into some small wayside elms. There they began a concert which suggested the spring choruses of red-winged blackbirds. Besides the tchit-tchit, which is their ordinary call note, and the sweet canary-like call which the

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goldfinch also uses, many of the birds were singing a true song, subdued yet and fragmentary, but an evident attempt to recall the notes which they will later pour out over the stunted spruces of Labrador. There were little broken phrases suggesting a goldfinch's song, and a constant skree, a hoarse trill which in turn suggested the wheezy notes of the fine siskin. A man and a woman walked past under the trees where this concert was held, apparently unconscious that anything out of the ordinary was going on. Like Thoreau's neighbor, the now immortal Spalding, they walked under the trees ignorant of the rare creatures which tenanted the upper branches. Mr. Dallas Lore Sharp, who is annoyed by the bird-faddists, would have been pleased to see their complete indifference. They were descendants of Peter Bell; a red-poll linnet was to them only a little bird. To us they are rare visitors from distant lands; by their unfamiliar costumes and strange voices they suggest all the wonders of the Far North, the Eskimo in his kayak, the blue ice mountains, the fur trade, and the great barrens over which the caribou wander.

When I left the red-polls they had settled in an apple orchard and were examining the twigs, as if they found something there to their taste. It was evidently St. Valentine's Day with many of them, for couples constantly broke from the main body, and pursued each other in and out of the branches. All the time the air was full of the sweet chorus from a hundred little throats.

From this orchard a lane bordered by a stone wall led along the hillside. The bank of withered grass below the wall was bathed in strong March sunshine, from the "yonge sonne" just entering his course in the Ram. As I passed the wall the smell of earth rose from the warm bank, that first promise of all the ferments and rich harvest which the marriage of the earth and sun will produce. It grips one like no other odor; not even the breath from a bank of violets stirs the inmost man like this smell of the mould. A half-grown grasshopper kicked himself out of the grass as I walked on, a mourning-cloak butterfly fluttered out into the sunshine, and from overhead came at last the sound for which my ears had been straining all the morning, the ripple of a bluebird's song.

Nature About Boston

II.

BY RALPH HOFFMANN

A LOVER of the open air watches the advancing season as a parent watches the growth of his children. From time to time a child surprises his parents by some revelation of unsuspected depth or maturity of character, the promise of manhood or womanhood under the careless mask of childhood. So there comes in March or April a morning when the blustering winds are upgathered like sleeping flowers, when the sodden fields and bare boughs give promise of warmth and color, and the calm serenity of summer seems to brood over the land.

The hillside from which, on Saturday, March 23, I began a long day's outing fronts the east, and at this season it responds, like the statue of Memnon, to the rising sun. As the first beams strike its slopes it becomes vocal with the songs of many birds. I was wakened by a bluebird, singing from the tip of a neighboring elm. It was then six and till nearly six that evening, I was steeped, as it were, in bluebird music. I think I never in my life heard so much in one day; it was forever in my ears. At first I tried to note the number that I heard, but by the time I reached Arlington Heights I gave up the attempt. Every apple orchard in Lexington, Bedford, Billerica and Burlington seemed to have its pair, while from time to time little groups of six or seven passed overhead to the orchards of the north.

Song sparrows and snowbirds were the other chief elements in the bird life of the day. The song sparrows, like the bluebirds, were represented by both natives and migrant birds. The native birds were already in possession of their old haunts, while the migrants had taken refuge for the day in old brush-grown walls from which they scattered shyly over the adjoining grass land, to hurry back to shelter at the least alarm. Song sparrow music was universal; every style of melody, and every variety of voice was represented. If the electric car stopped for an instant in the less settled regions, one could catch through the open door the burr or trill of a song sparrow.

The snowbirds travel in compact flocks. I met five such companies during the day, each containing from thirty to fifty birds. Most of the birds seemed to be males, their pure white waistcoats contrasting sharply with their bluish-gray cowls; I did not notice a single female. One flock of snowbirds had a travelling companion—the first fox-sparrow that I had seen. (Has the gentle reader been enjoying them for a week?) He was singing, though not yet vigorously, and his fine rich notes brought me up, as they always do, with a start of pleasure. They come loud and full from the midst of the tinkling castanets of the snowbirds and the rather thin chorus of the song sparrows.

The objective point for the day was the hill-top of Burlington, by way of Bedford and Billerica. I wanted to get into a region where such a day actually means the beginning of a new season. In a surburban

community like ours it only marks the time to take off the storm porch and to rake the leaves from the bulb bed, and then life goes on much as before. I found it difficult, however, to keep to any definite direction; the sound of red-winged blackbirds in a field to the right no sooner tempted me off in that direction than I was lured back by a pair of bluebirds to the left. The bluebirds were looking over the trees in an apple orchard. The female flew from one tree to the next, the male, like a blue-coated Gareth, warbling, "Lead and I follow," and falling into the very ecstacy of song, if his mate peered for a moment into a hollow limb. This particular female seemed not yet in earnest; she apparently looked into the knot holes, not with any idea of taking immediate possession, but from force of habit, as women, walking in a city street, gaze with heads averted from their escorts, at hats and gowns which they have no intention of purchasing.

The blue of the sky was everywhere reflected from the full streams. The little brooks, like the birds, could not contain themselves, and spread over the adjoining slopes so that on every hillside the color of the sky was caught in a thousand patches of deep blue. Even the muddy road was streaked with purple. As I stood near the tower on Arlington Heights, the sun was caught by a misty cloud, and the shadows on all the distant ranges deepened to pale violet; but as the sun drew to the edges of the cloud the violet faded gradually to a pale grey. In the pastures the brushwood on all the grey birches had reddened with new life; even the alder thickets seemed to shine with a brighter silver, set off here and there by the yellowish twigs of a willow.

In Bedford everyone was enjoying the sunshine. Invalids and old people, cats and dogs, sat and dozed on the doorstep. The door of the barber shop was open, so that the man in the chair, if he liked not the barber's gossip, could listen to the bluebirds in the old elms along the pleasant village street. I stepped into a grocery and was met there too by a promise of summer; the packages of spring seeds were arranged in the middle of the room, and offered a brilliant display of all the gay flowers and luscious fruits which might for a judicious purchaser prove the fulfilment of this morning's promise.

As the car entered Bedford we had passed over the Shawsheen, and here to my delight I heard the "gossip of swallows" and saw their sharp cut wings high over the blue water. Swallows that dare the winds of a New England March are probably not so rare in the broad valleys of the Concord and its tributaries as in the narrower basins of the Charles and the Mystic. They were a welcome sight, for to me a single swallow marks, not summer perhaps, but still the second step of spring, the season when insect life begins. I found my first phœbe, too, in Bedford, calling from an old farmstead, and finding an abundance of phœbe food about the stone-walled cow yard, into which the sun was pouring. I asked the farmer when his phœbe had returned, but he confessed that he had no acquaintance with such a bird. He had seen a "squad of blackbirds" that morning, but he had only lately moved in from Arlington, and had not had time to get acquainted with an old settler like the phœbe. To judge by the elms before the house, the farm must date from the 18th century, and the pheobe, if he had had any pride of birth, must have cared little whether the farmer knew him or not. His ancestor had no doubt been calling on the morning when the seventy-seven Bedford men mustered under the village oak to start for the Concord fight.

Even the conductor on the car that carried me on to Billerica felt the softening influence of the day. "It makes a man feel like new," he said. He too had his eye out for wild life, and had seen a woodchuck come out of his burrow that morning. Who would not have been coaxed out of his burrow by such a morning? The wind was constantly brushing over the long grass and white-pine needles so that the sunlight brought out their gloss like the glint on a woman's hair.

As I passed one orchard after another, I saw many people looking upward into the branches of the trees; but they were not fellow ornithologists. The brown-tail moth has become a scourge through all this region, and extension shears seemed to be in the hands of every other fruit grower. In one orchard a woman in a man's straw hat was directing her husband's attention to the nests above. How is it that a creature ordinarily so particular about appearances as a woman can ever voluntarily put on a man's straw hat?

From Billerica I walked to Burlington, adding cowbirds and red-poll linnets, and a noble pair of red-shouldered hawks to the morning's list. Two loads of fragrant hay passed me on the road, and as the wind blew wisps from the sides of the load I stooped to see of what constituents the hay was composed. It was unusually good hay, chiefly white-top, with a little herd's grass, and some sweet vernal grass, the latter, of course, long past its flowering. I noted also a frond or two of sensitive fern, and a bit of vine from a running blackberry, a stalk of dock and one of sorrel. It was pleasant thus to botanize in March among the plants of midsummer. I doubt not that a skilled collector could have told to a fortnight just when the hay was cut, and just the sort of land where it grew, as Layard restored the palace of Sennacherib from the fragments of alabaster slabs, or an economic entomologist at Washington by studying the bits of legs and shells in a bird's stomach can make out for you the menu of his last meal.

A little farther on an apple tree beside the road attracted my attention. It had been cut open about four feet from the ground; the hole was two feet long and a hand's breadth wide. A glance into the hollow explained the purpose of the cut. The hollow was lined from top to bottom with the base of a layer of honey comb. It had been a bee tree, in which a swarm of wild bees had stored the fragrant nectar from the clover fields and raspberry patches of Billerica. Either some passer-by had noticed

their coming and going at the entrance to their retreat, or had "lined" them to this tree; he had then laid open their rich treasures with the axe and had carried home who knows how many pounds of dripping comb.

The sun was now nearing the meridian and it was borne in upon me that it was time to celebrate the noontide with due rites. For me too bees had been laboring in clover fields and the farmers of the Red River valley had grown golden wheat. The Shawsheen lay before me; what better place for a noonday meal of bread and honey. When thirsty I had but to stoop and drink the blue water of the river, fresh from the cranberry bogs of Bedford.

While I sat at my lunch I had many visitors. A chickadee, making his way along the alders on the banks, stopped to cock his bright, black eye at me. A flock of snowbirds came from a grove of pines and straggled over the field behind me. Some stopped and sang to me, uttering not only their high trill, always suggestive of early dawn on the bare summits of the White Mountains, but also a little subdued medley, which sounds as if the bird made it up as he went along. A pair of swallows were playing over the water or using the trolley wires for perches. Two tree sparrows, the only ones I saw all day, were taking a siesta in the alders, and once the rumble of a car spurred a rusty blackbird to a single burst of wheezy song, whether of protest or of emulation. In the sandy field behind me some white leathery fragments showed where a mammal, fox or skunk, had uncovered and eaten a clutch of turtle's eggs. Today, however, I could discover no inhabitants of the river larger than a water-boatman. The river was going down, to judge from the line of brash along the bank. The numbers of small empty snailshells, mostly of the round species (Planorbis) at high water mark was remarkable. Where I sat I counted over a hundred in a few square feet. What catastrophe had overtaken the species, or was this the normal yearly loss?

Such a meal on such a day is one long to be remembered. When one spreads his table on the banks of a stream which lives up to a name like the Shawsheen, and has for choristers the first phœbes and swallows of the year, poorer fare than bread and honey would suffice. I have never tasted the far-famed honey of Hybla, nor that which the Attic bees gathered from the purple slopes of Hymettus, but I know that it could not surpass in flavor the honey of West Medford when eaten on the banks of the Shawsheen.

In an old orchard, badly neglected from an apple-grower's point of view, carefully tended from that of the bluebird, a nuthatch was singing with a monotonous persistence. At last the secret of his iteration was revealed. A female nuthatch came out of a hollow limb with something—it might have been a chip—in her slender bill. I do not know whether the nuthatch begins housekeeping as early as this. The female, however, often lays as many as nine eggs; perhaps it behooves her to get an early start.

As I neared the foot of the hill on which I supposed the village of Burlington was perched I saw two men coming down a hillside to the road. One was without a coat and carried an axe; the other had a small blue agate saucepan in his hand. At first I was puzzled to account for the dish, but I finally made up my mind that the pair had been mending fences, and that the saucepan contained nails. The man with the axe had a spare, bent figure, a shrewd and humorous eye; his companion had the shambling gait, the wild eye and untrimmed beard of the feeble-minded. Determined to verify my guess, I waited for them to reach the road, and then walked over till I was near enough to see that I had come close to the truth. It was wire fences that they had been mending, and the saucepan contained the staples.

To cover my curiosity I asked how far it was to Burlington. The man with the axe assured me that I was "pooty nigh in the middle of Burlington." On my answering that I wanted to get on top of Burlington, he said: "You 're quite high-minded to want to climb that hill." Our acquaintance having been thus begun, we talked for some time, leaning against the bars and luxuriating in the warm sun. I asked whether his solicitude for the fences meant that he had turned his stock out already. "Yes," he said, "I turned 'em out today to kind of air 'em."

I found that for twenty years he and his wife had been managing almshouses. He told me that the inmates of these institutions lived as well as he or I did, except for the foolish interference of the State, which demands that each new inmate shall be given a bath on his admission. "Now, when some old feller has gone mebbe seventy or eighty year without takin' a bath, it 's against natur' to begin on him then," he said. I ventured the opinion that if it had gone so long, it might be high time to begin. He allowed that there might be that point of view, but he backed up his opinion by an account of his experience with a newly arrived lodger. The State inspector had insisted on his giving the poor victim the official bath, but the sight of the bath-tub half full of water had "scat him nigh to death." "He thot I was going to drown him; I regularly had to cast him like a horse. But when he seen that it done him no harm, he quit strugglin'."

Between Burlington and Winchester the road passes over a fairly high ridge, and descends into a little valley, where for a moment one could imagine oneself in the Berkshires. It is almost a mountain gorge, shaded by tall oaks and pines. A phœbe (I had seen six in all) was calling in a little sunny opening. There was no house in sight. Perhaps the phœbe still built in ancestral fashion, on the ledges of the cliff past which the road wound. Across the valley rose Zion's Hill in Winchester. As I climbed it, at about five o'clock, the slant sun was still pouring a flood of light over all the valley below. Crows had been passing north all the afternoon, in companies of forty, fifty and even a long line of seventy-five. From the brow of the hill I got a hint of the scene which must spread itself out to anyone who could travel as the crows flies. In the pale west rose the Peterboro hills and the great bulk of Wachusett. To the north stretched the broad valley of the Shawsheen, along which perhaps, in pre-glacial times, some broad stream descended from the north. Now it

is the highway for the crows of Ossipee and North Conway. Somewhere a robin was singing — singing about a spring sunset in New England and the swelling elm buds; bluebirds too were warbling, and only an obstinate bank of snow on the north side of a wall and the muddy road showed how late had been our release from the grip of winter.

April 3, 1907.

Nature About Boston

III.

BY RALPH HOFFMANN

OF all the performances to which a student of birds can look forward, the flight-song of the woodcock has the greatest fascination. The "stunt" is in itself remarkable—a heavy, clumsy looking bird, who spends most of his life on the ground, is moved by the season to mount aloft and be a lark! The stage-setting, too, heightens the feeling of expectancy with which one awaits any new experience. No matter how often I hear a woodcock, the same feeling comes over me, as at the theatre before the play begins. The bell rings, the music stops, and the curtain rises on who can tell what scene of enchantment or mystery.

At this season of the year you must be on the woodcock ground by a little after six. The sun has already set, but far up toward the zenith rosy streamers of cloud are still floating. Robins are singing, and from the gray birches come the rich notes of fox-sparrows, repeating their vespers. In the marshes, innumerable hylas are piping, in an almost deafening chorus of shrill and incessant sound, while from the pools in the woods comes the discordant twanging of wood frogs. As the red fades from the clouds, the robins gradually stop singing, and begin to call to each other. The twilight has been insensibly deepening, and the trees and rocks in the pasture become more and more indistinct. A couple of dark forms startle us, flying low and silently—a pair of black ducks going to their feeding grounds in the swampy meadow. At last even the robins are silent. Suddenly from the birches in the hollow below us, comes a single, penetrating "peent," like a night-hawk's note, but even more vibrant.

In a moment the note is repeated, less loud this time as the bird changes his position and turns his back upon us. Now we have to wait patiently till he has worked himself up to the requisite enthusiasm. If you care to, you can pass the time by counting the "peents"; one bird repeated the note 123 times before he began his flight. Suddenly your companion grips your arm. You hear the whistling of wings, and if your sight is good, you see the bird flying low over the open field, rising gradually into the wind, until he shows clear against the western sky. Back and forth he flies, rising steadily higher till he looks for all the world like a huge insect.

All the time the whistling and twittering sound continues. Presently you are aware of a new sound, a succession of sweet, liquid notes dropping from the sky, and an instant later the bird comes zig-zagging down and alights in the open space, perhaps only a short distance away. He has been in the air nearly a minute. Silence for a moment, then a "peent" so loud and vibrant that it startles you. There is still light enough to see the outline of the bird, standing in the grass, and with the glass you can make out his long bill. When he rises the next time, you run for a bush near the place where he last descended, and as he plunges down, there is a moment of suspense. Will he alight beside you, or sheer off to the other side of the field? If he comes down near enough, you will hear what is called the "ptul" note, a curious inward sound which has been likened to the music of water dripping into a well. One, two and rarely three of these "ptuls" precede each "peent."

If the light still holds, you put your glass on the bird and try to make out exactly what he does when he is on the ground. There is usually just light enough to tantalize one; he certainly jerked his head, as he uttered the peent, but did he or did he not open his wings or spread his tail?

My own particular woodcock has an excellent taste in landscape. He spends his day in a little swale at the foot of a hillside pasture which faces the west, so that while we wait for his first ascent, we can watch the evening star burning, brighter in the fading sunset. One spring, as I sat watching the reddening clouds, they parted, and a veritable new planet, Mercury, swam into my ken. Venus, too, and Saturn were a little higher in the same quarter of the sky, so that once when the woodcock rose, his dark body crossed the shining orb of Venus—a transit of the woodcock. Another evening, as I was looking through field-glasses at the still glowing west, four large birds crossed the field of observation, flapping slowly and in single file toward the north—night herons I suppose, migrating toward the marshes of Newburyport or the coast of Maine.

Before the present wave of bird study it was a mark of some distinction to see the partridge drum in the woods, or hear the woodcock's evening hymn.

> "Most can raise the flowers now,
> For all have got the seed."

There are personally conducted expeditions to hear well-known and long-suffering woodcocks. I have known one poor bird to perform to an audience of over a dozen people. Once a day, however, the woodcock has the pasture and the swale to himself; for he repeats his performance before dawn, when only the morning star looks down on his flight;—

> "Soon as the gray-eyed morning streaks the skies,
> And in the doubtful day the woodcock flies."

This repetition of his song-flight at daybreak offers an enthusiastic observer the best opportunity to see just what the woodcock does. One must rise before four and perhaps shiver in the chill dawn of March, but each time that the bird goes up, the sunrise is a little nearer, the shadows lessen instead of deepen, and at last the performance is given almost in broad daylight.

Our latitude will rarely offer a better day for such an early morning expedition

April 17, 1907.

than Saturday, March 30. With the thermometer above 40° all night long, there was no risk of chill waiting. The turf was as dry and springy as in mid-April. It was an ideal morning, and as far as I was concerned, there was but one drawback—there was no woodcock. At 4.30 the full moon, which had up to that time been obscured by drifting vapor, shone out clear, and a pheasant crowed. Then a robin called, and at 4.43 the first song sparrow sang. The east was reddening slightly and I gave up all hope of the woodcock. At 4.55 robins began to sing, and a minute later crows in a neighboring pine grove woke and cawed lustily. At 5 there began the grand chorus of robins, crows and song sparrows.

Not far from the woodcock field are some grassy hills, where, on March 27, 1904, I found a very early vesper sparrow. I walked over to see whether he had again come in March (April 5 is usually an early date) and as I drew near the spot, I discovered that he and all his kin had arrived. Five males were singing at once, almost continuously. Rivalry was intense; two birds in particular were each trying to preempt a certain district, alighting and singing on each stone in turn, only to be driven off by an eager pursuer. How little the songs of individual vesper sparrows differ, compared with the almost endless variety of the song sparrow. One of these five did vary somewhat from the others in the ending of his song, but the others were to my ear exactly on the same pitch, so that if one began an instant after the other, their opening notes blended perfectly.

The morning was beginning to reward me, after all, for my disappointment with the woodcock. It is not often that one can have vesper sparrow music in abundance in March. Moreover another surprise was to follow. I climbed the hill toward a beautiful grove of pitch pines, on the south slope of Arlington Heights, among which I knew a particularly punctual pine warbler housed. As I entered the grove from the west side, I caught sight of the sun between the trunks of the low trees; nearly all its light was shut off from the surrounding sky by the dense stratum of vapor through which I was looking, so that only the blazing red ball glared through the dark pines. A little rippling trill came from the pines at my left. The pine warbler had come; and lest my readers should fancy that I do not share their human weaknesses, let me confess that I was delighted to remember that his arrival broke my earliest record by one day.

As I stepped out of the pines I was greeted by a long, minor cadence from a wilderness of huckleberry bushes. I took off my hat and saluted the first field sparrow that I have ever heard in March. On consulting Mr. Brewster's Cambridge list—the "Who's Who" of the birds about Boston—I found that my field sparrow had equalled the earliest recorded arrival. Who would have ventured amid the deep snow and low temperatures of early March to prophesy fine warblers and field sparrows within the month?

NATURE ABOUT BOSTON

IV.

BY RALPH HOFFMANN

THE fox sparrows, at any rate, have enjoyed the past ten days. How lustily they sang! How vigorously they scratched in the light snow, confident that the loose mould lay below. Either the flocks that were previously scattered over the country were driven into the towns by the snow, or their numbers were augmented even during the inclement weather by arrivals from the South. Certainly by the middle of last week there was an astonishing number in the region about Belmont. Even in the heart of Cambridge, I often heard their sharp tseep, or caught a bit of wild music.

Snowbirds, too, have been all about the houses, and after the snow, they were forced to hunt for food in every likely corner. I found their tracks about the kitchen door, and even on the snow-covered front-door mat. I took the hint and have since then been supporting a chosen few by scattering canary seed on the doorstep and over the adjacent flagging. There were generally ten or a dozen birds feeding busily at all hours of the day; I counted at one time half-a-dozen fox sparrows, as many snowbirds, a song sparrow and a pair of English sparrows. This mixed flock fed peaceably together; the only instance of ill temper that I saw was a petulant charge by the little song sparrow against a fox sparrow nearly twice his weight. The fox sparrows were shier than the snowbirds and flew if they saw the curtain move. Why is it that though they share the uninhabited regions of the North with the pine grosbeaks, crossbills and redpolls, they have not acquired the fearlessness of these birds. Is it on their annual migrations that they have learned to fear man, or have the boreal finches, like the vireos and chickadees, a disposition naturally more confiding.

No fear of injudicious charity with these cheerful and energetic vagrants! In fact my gift of seed, like much charity, is more to please myself than to benefit the birds. Fox sparrows and snowbirds spend the greater part of their year in just such vacillating weather as we have in early April, and like spoiled children they know that spring only threatens.

At one time the only birds on my flagging were a male and female snowbird. As they drew near each other, in the process of feeding, they suddenly faced each other with head up, and then sparred a little, swaying their heads from side to side. I have seen chipping and song sparrows in the mating season assume the same attitude. A moment later the female drove at the male with the characteristic ill temper displayed by the hen bird during the courtship season. The male was fairly driven off the feeding ground. I could not help smiling at the changed relations which the season had brought about. In the winter, when I spread a table for the snowbirds, the males eat at the first table; any female that dares to approach is instantly taught her place. "In time the savage bull doth bear the yoke."

Robins, too, have been scattered over the land in tremendous numbers. On the afternoon of Thursday, April 11, I walked out from Cambridge to Belmont, past Fresh Pond. In the wet meadows along the northern side of the pond, where the Tudor icehouses stood in Mr. Bolles' day, a multitude of robins were feeding. They stood like plover on a beach, each heading in a different direction. But a beach as full of plover as the meadows were of robins would be a sight one would cross a continent to see. They were like the daffodils, a never-ending line. I counted over two hundred and fifty, and then had seen certainly less than a third of the whole assembly. As I watched them, some sudden alarm startled a number, so that they rose and flew between me and the low sun. Their wings were illuminated by the sun's rays, and seemed transparent, like gauze; only their bodies were opaque. Flock after flock flew past on shimmering wings. One may watch a familiar object for years, and some day, if one can only see it in a new light, discover a new and unsuspected beauty.

It was nearing six, and for twenty minutes little companies of robins, and occasionally a group of fox sparrows, had been flying overhead in a northern direction, heading, that is, toward Belmont and Waverley and passing at the rate of about fifty a minute. For the next half hour a succession of flocks went by, all heading in the same general direction, in more or less compact groups, sometimes nearly a hundred in sight at once. Even the children playing in the streets, commented on the sky full of birds. I was curious to know their destination. Many seemed to keep along the low land as if toward Waverley. Others made for the hill top, due north, and if the robin had not been a day migrant, I might have supposed that the bright sunset had started them on a northward journey.

It was after six when I stood at the edge of the extensive cedar grove between Belmont and Arlington Heights. The sun had set, but still companies of robins, often as many as forty or fifty in a band, kept coming past. I saw now that they were seeking a night's lodging in the cedars. As they neared the dark line of trees, they generally flew low over the ground, and the whole flight, for such a noisy bird, was almost mysteriously silent. As flock after flock kept arriving, apparently out of the empty sky, I began to have a faint conception of the infinite number of these creatures that must exist in the land. Their silence, their unvarying direction, and the successive appearance of flock after flock, began to give me a helpless sensation, as of one about to be overwhelmed by infinite numbers of some small creature. A plague of locusts would arouse this feeling in an acute degree, and to Bishop Hatto in his tower it came as a premonition of his doom.

The robins, however, swept innocently by, and sought the dark cedars. I began to hear now a subdued clucking from all parts of the grove, as the restless birds settled themselves for the night. As it grew darker, the incoming flocks flew so close to me that as they swerved past, the swish of their wings was fairly loud. The robins in the cedars were still calling, but the arrivals had almost stopped. Occasionally a fox sparrow sang, or a half-frozen hyla piped in a neighboring pool.

Few of us have had such an opportunity before to study fox-sparrow music. The individuals that I have heard differed markedly in their songs, though there was one type to which they all seemed to approximate. They differed also in richness and loudness of tone. It is not only the splendid quality of the voice that distinguishes the song of this bird, but also the accent with which he delivers it. The high notes are invariably brought out with greater force than the others. The fox sparrow could not have a better foil than the snowbird, whose trill is absolutely devoid of expression. Several fox sparrows that I heard talked to themselves between the repetitions of their song, uttering formless little fragments and snatches of tone similar to the fall song of the song sparrow.

The invasion of our towns by such a melodious multitude has suggested, no doubt, to many observers some of the puzzling questions connected with migration. Why are they here this year in such numbers, and nearly absent during other springs? It would be extremely interesting to know the exact limits of this great wave of fox sparrows, robins and snowbirds. When all the Atlantic seaboard watches the returning migrants as closely as certain communities do already, we shall have a system of bird bulletins, like the present weather maps. The chief forecaster in Boston will announce that an area of high ornithological pressure exists in New Jersey, which will be due in Massachusetts the following day. "Expect a wave of brown thrashers and chewinks, with possible chimney swifts in the afternoon!"

Ornithologists generally account for a condition like the present by assuming that south of us there have been conditions favorable to migration; the birds that have been wintering in the Middle States therefore start north, but when they reach New England, finding cold weather and northeast winds here, they go no farther. Birds may keep arrivinng from the South, if the conditions there remain favorable to a northward movement, but they bank up here till we have the country flooded as at present.

It may interest the readers of this column to compare with their own dates the following list of arrivals in Lexington. It will be seen that there, as in Belmont, no chipping sparrows came on the warm wave which brought field sparrows, though the two often arrive together. This suggests another problem in migration. Were the chipping sparrows with the field sparrows in the South, and did they remain obdurate to conditions that set the other birds moving, or did the field sparrows which reached us come from some locality where no chipping sparrows wintered?

The list is as follows:

Bluebirds	March	16
Phœbes, Rusty blackbirds	"	21
Fox sparrows, Juncos	"	22
Cowbirds, Meadowlarks	"	23
Field sparrows, Vesper sparrows	"	28
Savanna sparrows	"	30
Yellow palm warbler (one bird)	"	30
Pine warblers	"	31

April 24, 1907.

NATURE ABOUT BOSTON

V.

BY RALPH HOFFMANN

I SPENT Wednesday, April 17, on the Squannacook, letting the little stream, which was high with the melted snow, carry my canoe down to Townsend harbor. The Squannacook starts on the eastern slopes of Ashby, a hill town in the northwestern corner of Middlesex County, on the New Hampshire line. It is not a stream that one would care to paddle up, for though by no means as impetuous as a mountain brook it loiters very little on its journey to the Nashua.

When I entered the freight shed at West Townsend I found my canoe at the bottom of a pile of ten; the station agent told me with evident pride that he had received thirty canoes during the last season. I supposed that my trip would open the present one, but he told me that two canoes had gone down the day before. I found later that they belonged to some brother ornithologists who had spent three days on the Squannacook, Nashua, Merrimac and Concord rivers.

The stream flows for the most part between steep banks, through which it has cut a deep channel. The banks are clothed for nearly the whole distance with trees, and as the fierce onset of the spring floods eats into the loose soil of the bank, it gradually undermines some tall pine or elm, or water-loving red maple. Vainly the tree strives to cling with half its roots to the bank behind it; it gives way at last and stretches its fallen branches quite or nearly across the narrow channel. Sometimes a canoe can just slip under the trunk, close to its roots, but more often a passage must be forced through the outstretched branches. There is no real danger, but with the stream hurrying the light canoe along, and perhaps a puff of wind slewing the stern around at just the critical moment, there is enough excitement to make each sharp turn in the river a moment of pleasant suspense.

An ornithologist in particular is always getting into difficulties. Just as my companion and I were preparing to run under a low arch made by a fallen elm, a Cooper's hawk flew noiselessly from a swampy bit of ground at our left. His bluish-gray back, the rufous bars on his breast, and the blackish bands across his tail were photographed on my retina in an instant; the next moment we were cheerfully entangled in the branches of the elm.

I heard that the young ornithologists who had gone down the day before had tried to run a little fall below Townsend harbor. The water curls up below the fall and over the bow of the canoe; the first boat merely shipped a few inches of water, but the second took in a flood which sank the canoe. The man in the stern settled gradually and peacefully, till his amused companions, looking back from the forward canoe, saw only his head above water, still wearing his hat, his eyeglasses, and his amiable smile.

There was very little bird-life along the banks of the stream. Now and then a song sparrow skulked silently among the roots of the trees, and once I thought I heard the scolding of a winter wren, but I could not cheep him into the public eye. Once the stream passed under a bank dark with hemlock and laurel, where the water too was sombre with the reflections from the evergreens. Patches of snow still lay under the laurel, and here we heard the lisp of golden-crowned knights, and once or twice their song. Except for a few chipping sparrows, I met no bird that had not been here for at least two weeks, unless it were a fine osprey that started from the top of a tree on the bank of the river. I saw no swallows, no kingfishers, no sandpipers, and did not hear a single grouse drum in the woods. Near Townsend harbor the Squannacook almost loses itself in a deep swamp, where a hairy woodpecker showed himself for a moment. When the stream escapes from the swamp it broadens into the harbor, a wide expanse caused by a dam just below. Here as we were leaving the alders that had fringed the current for a mile or more, I heard the low quack of a black duck; a moment later a pair sprang from the water ahead of us. The sun fell full on them, and I saw that the drake at least had bright red legs. This mark served to identify him as the northern species, the red-legged black duck. What was he doing in the reeds of the Squannacook in the middle of April? According to the books, he should have left for the north a month ago. I could not help suspecting that if we had known these marshes as well as he and his mate, and could have followed where his red legs had paddled, we might have found at the base of some tree on the shore a nest lined with down in which he had a particular interest.

At Townsend Centre we had a pleasant surprise. A duck flew up from a pool and crossed ahead of us, with a swaying flight. As the light fell on it, I saw the white under parts of a female wood duck, once the commonest duck on our inland streams, now "a vanishing game bird." We had to carry around the dam at Townsend Centre and before we "set in," we stopped a moment to listen to some fox sparrows that were singing near the ruins of a large sawmill. I had had an opportunity the night before to watch this same flock feeding in what seemed at first a very peculiar situation. The mill had burned to the ground during the winter; the fox sparrows, together with some song sparrows, were scratching in a sort of cellar where the burned rafters lay over masses of crumbled stone. I climbed down to see what they could possibly find among the ruins, and discovered a quantity of half-charred corn. The mill, though chiefly for sawing lumber, had also a grist department, and a whole carload of corn was in the storeroom at the time of the fire. Much had been shovelled out, I was told, and fed to the neighbors' hens, and the fox sparrows were gleaning thankfully amidst the remainder.

The valley of the Squannacook is "pine-plain" land, to use the local term. A better physiographer than I could no doubt read the records which ice and water have left, and explain the great stretches of sand which have apparently been spread over an earlier and deeper valley. These sandy stretches produce an abundance of white pine, of an inferior grade, but useful in an industry which I had never before had a

chance to study. About the burned mill were piles of clean, yellowish boards, a little longer than shingles—barrel staves, made by cutting the pine trees into sections at each whorl of branches, and using the different lengths thus obtained for barrels of different sizes.

The aspect of the industry which particularly interested me was the evidence in many yards that men still worked at home, like the hand weavers of a former century. I stepped into a little shop before which I saw piles of staves and watched the solitary cooper at his work. Here were no roar and rattle of machinery; the man was alone with his work and his thoughts. No specialization, either, narrowing both the mind and the body; he had half a dozen distinct processes to complete, each of which demanded a different kind of skill.

As I watched the man make a barrel, I discovered that a cooper is like a poet. He must select his staves with such an instinctive feeling for composition that they fit, when bound together, into a perfect whole. He has as unerring an instinct for the proper width, as the poet for the mot juste.

Thus in following the Squannacook to its source, I had found the sources of other things as well. I know now that a nail keg has sprung from the pine plains of Townsend, and can picture in my mind's eye its course through the sawmill and the hands of the silent, thoughtful cooper.

When the pines are cut off from a sandy plain, gray birch springs up in their place. I had always supposed that gray birch was good for nothing except to grow aphids for black-poll warblers to feed on, but in Townsend I learned to respect even the gray birch. In another yard beyond that of the cooper I saw bundles of gray birch poles about six feet long, and near the door of a little shop, heaps of long white shavings. When I had knocked and entered, I found a little bent Irishman seated on a low stool, almost buried in piles of the same long shavings that I had seen outside the door. He held in front of him a birch pole, which had been split lengthwise. It lay, bark down, on a beam which stretched from his stool to the opposite wall about breast high. The birch was held firmly to the beam by a clamp which he controlled by a footboard, or treadle, under the beam. In his hands he held a two-handled knife, which he was drawing toward him over the birch sapling, through the knots, leaving a thin but tough strip of even thickness. This he finished at each end into what he called the lap, and then laid it into a rack at his side where lay about a hundred similar strips. These strips I recognized as the hoops which I had seen my friend, the cooper, binding around the staves, lapping and locking them together.

My Irish hoop-maker, like most solitary workers, seemed glad of company, and showed me all the tools and processes of his craft. He showed me the cleats on the floor from which he measures the poles to different lengths; from the farthest cleat to the chopping block makes a six-foot hoop. "Now a man," he said, "can't be measured so easy-like. There was General Grant now; he did n't measure up to six-foot length, but you would be making a mistake to cast him aside for that." With an adze he started to split a pole, and then showed me a hook, driven into a bench, with which he held the lower half of the pole, while he gradually pulled the upper half off. He told me that this hook was a comparatively recent improvement; in his younger days he had split thousands of poles by bending over and holding the lower half to the floor with one foot, and then when his back could stand it no longer, standing erect and tearing them apart with the adze.

He had lived sixty years in Townsend and could remember when there were no "foreigners" in the village, "nobody but Americans and Irish." The French-Canadians and Down Easters were coming in now and threatening to get complete control.

For a bundle of a hundred hoops he got seventy cents, and in his younger days, he had split, in a twelve-hour day, seven bundles. But he reminded me that this did not mean earning $5 a day. First the young birches must be cut and hauled, and unless one owned his own birch lot, as he did now, the standing birches had to be paid for. The black poll warblers after all have an easier time; they get their living from the gray birches and ask no man's leave.

The little hoop maker was not the only interesting importation from Ireland into Townsend. Near the railroad track just below West Townsend, there is a boggy hillside, nearly overgrown with Scotch heather, the true European heather. I was directed to it by a number of people, for it is one of the well-known sights of the town. When I entered the field, I saw numerous spade marks, showing that lovers of the flowers had dug a clump here and there, and transferred it to their gardens.

I succeeded in tracing the heather also to its source. Thirty years ago two sisters from Townsend, revisiting the family home in the north of Ireland, gathered a handful of heather, while on their way to Dundalk, the seaport from which they were to sail. The heather, though still in bloom, bore ripe seed. On their return to Townsend, it occurred to them to strew the seed in a cranberry bog on their farm. Two or three years later they were surprised to discover small but vigorous plants of heather among the cranberry vines. Heather has been found in several other localities in Massachusetts and also in Maine, New Hampshire and Rhode Island, and for many years botanists believed that in some spots, at any rate, the plant was native. But it would be very natural for Scotch or Irish emigrants to bring over, as here in Townsend, a plant so characteristic of their native moors, and the ease with which it was grown from seed in this locality makes it seem more likely that elsewhere it has been either accidentally brought in or that the story of its introduction has been lost.

There is no danger of the heather being exterminated; the patch is large already, and is constantly spreading. The people who told me about it spoke of the decrease of the mayflower, due to its exportation from Townsend; large quantities are sent each spring to a Boston florist. Let us hope that sentiment will before long force a law to prevent its public sale, at any rate, on the streets.

I wanted to ask the school children

whether they had found any mayflower in blossom yet, and therefore waited before the schoolhouse till school should be out. The teacher must have been unusually sensible, and not afraid of fresh air, for the doors had been left open, and very cheerful sounds of question and answer came out as I waited. Presently a little group who had been dismissed early passed me, each carrying a drawing of a bluebird, which he or she had colored that day, and as a special prize, a coffee house leaflet with a bright scarlet tanager on the cover, donated by the village grocer. Children in West Townsend must be differently constituted from the ones that I know, for as they drove away in a farm wagon, they all proceeded to extract and devour luncheon from their baskets. The children that I am most intimate with have been known to eat their luncheon on their way to school; to eat any on their way from school would be impossible.

I found a few blossoms of mayflower on a sunny slope in West Groton; otherwise I could not see that either the flowers or the birds showed any advance in the season. There was almost no sign of spring in the general aspect of the trees and bushes. By looking closely at the banks, one could see the violet leaves pushing above the swampy soil, and once we passed a lusty roll of hellebore, half a foot above the mud. Hazel and alder catkins, of course, hung limp, and every fallen swamp maple was red with buds. But the distant hillsides were like winter landscapes, except for the absence of snow. There was none of that mist of delicate color which the next warm wave will bring out in the birches.

May 1, 1907.

NATURE ABOUT BOSTON

VI.

BY RALPH HOFFMANN

The birds are here, for all the season's late;
They take the sun's height an' don' never wait;
Soon'z he officially declares it 's spring
Their light hearts lift 'em on a north'ard wing.

The buds, too, in spite of the continued chill winds, have been yielding slowly to an irresistible force. The apple twigs have been tipped with gray for a fortnight; and during the last week these gray points have unfolded, and here and there broadened into green. The wild cherry growing close to some low wall is half in leaf; the plants that are closest to the bosom of the earth are the first to feel its new warmth. Last Sunday houstonia, five-finger, the little blue violet (V. ovata), wild strawberry and anemone were still in bud; by the end of the week they were all in flower.

During the night of Monday, April 22, toads were trilling in every little pool and ditch. Their music, like that of the tree-crickets in late summer, forms an undertone to all the other sounds, varying continually in pitch, as some higher pipe is struck or, dying away at last, is succeeded by a neighbor in a lower key.

To many people the rhythmic beat of the crickets is a mournful sound, presaging the approach of autumn; the trilling of the toads, however, ought to take its place with the piping of the hylas as a good omen, foretelling the arrival of spring migrants. In Japan the awakening of the toads would be celebrated in song.

On this 22d of April they began trilling after a day of strong southwest wind, so that it was easy to prophesy that the birds would take advantage of the wind to make another station on their northward journey.

When you can see new birds on your way to the train, there has surely been a flight. I had hardly stepped outside my gate Tuesday morning when I caught the fine, almost rasping, preliminary notes of a ruby-crowned kinglet, and then the gay little theme which he repeats twice or three times in the middle of his song. It is a performance that makes one laugh for pure pleasure, but it seems to me to belong to the class of songs which depend on their sweetness of tone and skill in execution for the pleasure which they give rather than on the tenderness or depth of feeling which they arouse.

With the ruby-crowns had come yellow-rumped (or myrtle) warblers, and evidently a great increase in the number of yellow palm warblers and hermit thrushes. Both of the latter have been seen earlier, but I saw my first Tuesday morning, three or four of each. Barn swallows were also here on Tuesday morning, though I saw none till Thursday.

The fox sparrows, which had been diminishing in numbers for several days, apparently took the same occasion to go on with their northern journey. I heard my last Monday morning. Snowbirds and tree sparrows are still here, and in Cambridge, at least there has been for a fortnight an invasion of pine finches. From nearly every yard where there are Norway spruces I have caught the canary-like call note, and often a wheezy sound, like the music which children extract from a comb covered with tissue paper. One bird gave a little exhibition in the air, singing and circling about in the manner of gold finches in summer. A single red crossbill, feeding in the Scotch pines in the Harvard Observatory grounds, seemed to have lost his immediate kinsfolk, and to have joined the pine finches.

In a former letter I speculated as to the extent of the fox sparrow invasion. That it extended well up the coast of Maine is shown by an interesting letter which I have received from Damariscotta, and from which I give an extract below. I take this occasion to say that it will always give me great pleasure to hear from observers who happen to be readers of this column. The letter is as follows: "March 30th, very large flocks of the fox sparrows and juncos appeared in this village, the former filling the air with song, especially at six A. M. I gave them grass seed which they ate, then tried hemp and canary seed, and finally found they would eat bread crumbs, cooked potato, rice, apple and even baked beans; in fact almost everything. I counted 150 feeding at one time, and there were more. Among a flock of fifty or more, which came under my dining-room window, and were eating all day, were half a dozen song sparrows and two tree sparrows, the others fox sparrows and juncos. The English sparrows were

crowded out for once; occasionally one or two appeared, but did not remain long. I notice now (April 18) that the numbers are less, they seem more timid. One day a fox sparrow remained on the dining-room window-sill eating seed I had placed there while I sat at table close to the window."

Since Monday night the weather has offered no great temptation to birds to come north, and yet it is evident that they are pushing slowly forward. A friend in Lexington saw the first black and white creeper and the first white-throated sparrows on April 26, and on April 27, in spite of the continued cold weather, I found a water thrush, a bird which hardly ever arrives before the first of May.

Between Concord avenue and Fresh Pond there is a swampy jungle about an acre in extent, before which has stood for many years a sign warning people that it is dangerous to enter. Ever since I saw the sign I have wanted to penetrate the thicket, not that I particularly lust after danger, but because, like Bluebeard's wife, I want to explore any chamber that is always kept locked. Moreover, nearly every time that I pass the spot, a pheasant crows in the middle of the thicket. Last week I came upon him and his wives feeding just outside. As I approached he drew himself up to his full height, looking very magnificent. On the side of his head there was a deep red patch which I had never seen before, and his long silver tail was held out grandly like a peacock's. Meanwhile his two brown partners were crouching and running in some shrubbery, heading for the thicket. I was now not more than fifteen yards away, and as I advanced, they all flew, the females disappearing into the jungle. The male, to my surprise, sailed off over the lawn, in full view, wings curved stiffly and his long tail trailing behind. Then he landed in plain sight on the lawn, and after a moment "clapped his silver wings" and crowed, like a gallant cavalier defying the enemy.

Saturday, April 27, I put on rubber boots and invaded his fastness. As I was about to enter he crowed from the middle of the thicket and I had high hopes of finding the nest. The little swamp, protected from the chill east wind by its trees, had almost the moist warmth of summer. The red maples were in full flower, and had attracted swarms of tiny insects. These in turn fell victims to yellow-rumped and yellow-palm warblers, and both species were in full, if rather feeble, song.

I searched every rod of the swamp, even forcing my way into raspberry and blackberry tangles. A ditch surrounded the thicket and from its margin I startled dozens of rusty blackbirds, which, flying to the border of the swamp, protested in their gurgling fashion as long as I stayed. There had evidently been a heavy flight of Savannah sparrows, which were now feeding in the short grass about the edges of the jungle. They were trying their voices, which were still extremely harsh and unmusical.

Through the middle of the thicket ran another ditch, and here, daintily picking his way, and now and then stopping to sing, was the water thrush, about five days ahead of time.

I spent in all about three-quarters of an hour beating the jungle backward and forward, and searching for the pheasants or their nest. Not a sound nor a glimpse betrayed their presence. Nor could I discover anything in the place suggestive of danger, unless it were a sturdy clump of poison sumach bushes. When I had given up the search, and was putting on my shoes, the pheasant crowed from the middle of the thicket!

An ornithologist is naturally of a prying disposition, and readily becomes an habitual trespasser. The other day the pursuit of a suspicious-looking sparrow led me into a field overlooking a man's backyard and garden. While waiting for my bird to reappear, I could not help observing the man at his gardening. He was apparently making a flower bed, for he had a spade and a rake, which he occasionally used, but not very vigorously or continuously. Twice he stopped to refill or relight his pipe. His dog, too, was with him, and needed considerable attention, of a kind which seemed to be gratifying both to him and to the man. From time to time he stopped to lean over the fence, apparently watching the reddening maples, or listening to the meadow lark on the other side of the field. I was too far away to see what he was planning to raise in the bed, but I know that he is getting one crop at any rate, contentment.

As I was coming home through the cedars, I saw a fox. Crows were scolding in the neighboring field, and as I came into an opening, there was the fox, running carelessly beside a stone wall, in no great haste and apparently unaware of my presence. He ran the whole length of the field, and across a little lane; the crows kept above him, and by their flight I could follow his course into another grove of cedars.

The grove into which the fox disappeared is only about three miles from Memorial Hall, and in sight of the State House. It is a tribute to Reynard's sagacity that he still maintains himself at the very edge of greater Boston. It is not because he is unmolested, for I not infrequently come upon a keen fox-hunter, with his pack of hounds, strolling of a Sunday through these very cedars. If his dogs start a fox and run him to earth somewhere, he gets up a hunt among his friends; each stations himself with a gun at some place where the fox is likely to cross the open, and now and then they get a shot or even the fox himself.

The owner of the pack is an Irishman, of about sixty, but straight and ruddy as if he had spent his life in the open air. Apparently the chase is what gives him pleasure, not the dead fox. While I was with him, one of the old dogs found a "smell," as he put it, and in a moment the whole pack of half a dozen were nosing eagerly about their tails stiffly erect and waving with excitement. "If it were only break 'o day

now," said the Irishman, "they would have the old fox out, but the smell is too stale now to follow. I have seen that old dog throw up his head and go clean across the field, and the fox come out of the wall on the other side. Then the whole pack 'll be off, runnin' an' roarin', makin' a hell of a racket, like a band of music."

He showed me a burrow where last spring a litter of young foxes had been dug out. He could tell that the young ones were in the burrow by the chicken bones, mouse and rabbit fur, and the odds and ends of all sorts which they had strewn about the opening.

I could understand how the old man's heart warmed to the music of his hounds, and the excitement of the chase, but my sympathies were with the fox, and I chuckled at a tale he told me of a hunt in North Lexington, where the fox had taken the hounds to the railroad track, and there thrown them completely off the scent. Snow covered the ground, and when it was too late to catch him, the hunters discovered that he had run for an eighth of a mile on the bare rail, and then leaped off to the side. Long may Reynard hunt in the moonlit cedars; my neighbors, I am sure, can spare his litter an occasional hen.

May 8, 1907.

NATURE ABOUT BOSTON

VII.

BY RALPH HOFFMANN

Most people are too clever; they go in when it rains. Ornithologists, however, by associating intimately with robins and red-winged blackbirds have discovered the beauty of the country in a spring rain. Saturday, May 4, opened with a cold, gray sky, and a searching east wind; by the middle of the morning even the robins were occasionally forced into shelter by the driving showers. But whenever the clouds lifted a little and the force of the rain abated, the vesper sparrows and the blackbirds scattered over the fields in search of food, or sang from some fence-post or tree.

In the midst of the rain I was piloted by a fellow-enthusiast to Shaker Glen in Woburn, to renew my acquaintance with one of the loveliest spots near Boston, and to meet a little flock of black-throated green warblers, which had returned on May Day to the white pines at the head of the glen. A broad lane led us between solid stone walls, past an old apple orchard into neglected pasture, of which young pitch pines were fast taking possession. From the pasture we looked down into the treetops at the head of the glen; the rain softening the red of the maples and heightening the brown of the elm buds, blended the whole into a mass of delicate color.

Three streams were romping down from the slopes that enclose the entrance to the glen, feeding innumerable plants of hellebore, which, rising stout and tall and green, made a miniature forest along the banks, and over the islands through which the streams made their way. An occasional patch of cowslip in full flower was the only other striking evidence of the progress which the plants were making, but by looking closely at the banks of the brooks or the rocky ledges above, one could discover the promise of a succession of woodland flowers. Rue anemone was already wide open, and here and there patches of windflowers were showing the pink undersurface of their sepals. Gold-thread and columbine were still in bud, but in the pastures the clusters of houstonia, drenched with rain, were bending till they touched the grass.

The lower part of the glen is narrow and rocky, and the steep hillsides are hidden by drooping hemlocks. The cheerful voice of a solitary vireo greeted us here; he was convoying a little group of migrants, a ruby-crowned kinglet, a black and white creeper and a black-throated green warbler. What a pity that this last attractive little bird has to bear so long and clumsy a name!

My companion had seen brown thrashers and chewinks on April 29, but it must have been only the advance guard of the flock, for I had been able to find none in Belmont. There had evidently been no general movement during the last week, for though a yellow warbler or two, and at least one chebec appeared in Cambridge on May Day, the orchards and gardens which these two species generally inhabit are still (May 5) deserted.

On May Day, too, the warm southwest wind started a little flight of chimney swifts; they drifted up in the afternoon from who knows where. House wrens, singing and scolding, in Belmont, Sunday, May 5, complete the list of arrivals of which I have so far heard.

We certainly must have that series of bird maps for the migration months. How interesting it would be, when everything is held back in this way, to know where the orioles are waiting. Have they reached Philadelphia yet, or are they already in Central Park? When Mr. Chapman finds that he can edit bird lore, and assist with the auk, take care of all his work in the American Museum, give his entertaining and instructive lectures, and still have plenty of spare time, he will be just the man to establish a line of observers from Cape Race to Key West, and during the spring and fall, furnish the students of birds accurate information as to the advancing column.

One poor migrant, at least, one of the band of Savannah sparrows that have been lingering about Fresh Pond, will never see his native salt marsh or grassy meadow again. He came to a sudden and tragic end. A fine finch was singing on one side of the road and a goldfinch across the way, each "going it," to use a colloquial expression which suits the interminable nature of the song of these two species. I had never before heard a pine finch sit and sing as if for ever, and had never had an opportunity to compare his performance with that of his near relative, the goldfinch. Their songs were very similar in form; but that of the pine finch was huskier, and often interrupted by the curious, comb-

wrapped-in-paper note of which I have spoken before.

Suddenly the two songs were cut off abruptly, and some English sparrows on a neighboring house began to scold, as they do at a cat. I was sufficiently well acquainted with bird language to interpret this as "hawk in sight." A moment later a male sparrow hawk shot past me, very low, perhaps ten feet from the ground, and directly over the field where many Savannah sparrows were feeding. The fields was covered with weeds, and over these the hawk hovered, his body stationary and his wings beating rapidly. He was a beautiful creature; his blue-gray head, reddish brown back and black-banded tail were all bright in the sunlight. Then he dropped suddenly into the weeds and Savannah sparrows shot out in all directions. They had been silent and immovable, crouching close to the ground, instinctively trusting to their brown-streaked plumage to hide them even from a hawk's eye. For a moment I thought the little hawk had failed, for the weeds hid him from sight; but after a few seconds, during which he had probably been biting his victim's neck, he rose and flew heavily, with a sparrow in his claws, to the top of an apple tree, where he began at once to tear and devour his prey.

The sparrow hawk on the whole has an excellent reputation. The Department of Agriculture declares that grasshoppers and mice are his staple diet, but it is evidently not safe for Savannah sparrows to trust too implicitly to the reports of the Department of Agriculture.

Personally I prefer a tardy spring. These next few days are in a way the most exquisite in all the year. The clean-cut lines which the branches have shown against the winter sky are softened now by the unfolding buds, and any day the ground beneath may be flecked with the first tiny squares of shade. The dwellers in the cities have the advantage now over the country folk; the forsythias and the Norway maples are masses of color, and the very sidewalks are crimson with the fallen flowers of the red maple. On the lawns near a pistillate Norway maple an observant eye may note at this time a curious phenomenon. The brown maple keys which have lain flat all winter, begin slowly to lift their broad wings into the air till they stand erect; sometimes a whole lawn is dotted with the slanting keys, like a fleet of sailboats all on the same tack. A few days later the swelling cotyledons force off the empty hood and stand revealed.

While the less hardy birds are still delaying in the South, the robins have already completed their nests and some have begun to lay.

Even among bird lovers I find that opinions vary considerably as to the desirability of the robin in the community. The chorus with which his tribe hail the coming dawn seems to have less and less charm for light sleepers the earlier it begins. Others complain of his restless callnotes before settling down for the night, but the most unexpected criticism came from a tender-hearted friend of mine who was always annoyed, he said, by the unmusical notes which a pair of robins utter when a cat is carrying off their young. He protested that he often felt like raising the window and calling out, "Let the brats go, and be quiet." But then he is a bachelor.

May 15, 1907.

NATURE ABOUT BOSTON

VIII.

BY RALPH HOFFMANN

It has been suggested to me that a flippant statement of mine in the Transcript of May 2 may bring upon my head the guilt of homicide. To avoid any such possibility let me hasten to publish the fact that the swampy thicket between Concord avenue and Fresh Pond, before which stands the sign warning people of danger, contains a pool which the park authorities have in vain tried to fill up. When I said that I had examined every rod of ground for the pheasant's nest I was guilty of inaccuracy, if the word ground be taken to include water. I did not set foot in the aforesaid pool, and I hereby warn all fellow-ornithologists that if they enter the thicket it is at the peril of their lives.

Since May 5 I have seen all the new birds at second hand. Some of my young friends who can still afford to belong to the four o'clock in the morning school of ornithology have kept me posted on the arrival of the birds, and I give below their list made in Cambridge and Belmont. They report only one or two of each species, instead of the flood which will be on us with the first warm wave.

Yellow-throated vireo (one, no others since).	May	2
Catbird (one)	"	5
Bobolink	"	9
Northern yellow-throat (one)	"	9
Northern water thrush	"	9
Veery	"	10
Ovenbird	"	10
Rose-breasted grosbeak	"	10
Chestnut-sided warbler	"	12
Nashville warbler	"	12
Parula warbler	"	12
Kingbird	"	12
Orioles	"	13

I believe that for twenty years orioles have never before been so late. If we only had access to all the old diaries in the country attics, somebody's great-grandfather has doubtless recorded them in some far off May at an equally late date. No one wonders at their delay. If even the robins sat through Saturday's snowstorm in sullen dejection, what must the few chebecs that are here and the other insect-eating birds have thought of it.

One of my neighbors pretends to be vastly entertained by the eagerness with which naturalists pry into the affairs of the birds

May 22, 1907.

and plants about them. We take an absurd interest, he maintains, in the arrival and departure of the birds, the date on which they first set up housekeeping, and the ways and means by which they procure food for themselves and their families. Our human neighbors, he contends, are much more interesting, and yet we care little or nothing for their goings and comings. They may move out from town in the spring, but we do not find it necessary to set down the date in a book and to see whether it is a day earlier or later than last year. We see them getting their daily bread in a great variety of fashions, but we do not watch them through an opera glass when they bring home a brown paper parcel.

There is no doubt that my neighbor has much right on his side. The intense interest with which we note anything connected with the lives of those whom we especially love has occasionally an element of the ridiculous. The doings and sayings of children sometimes have more fascination for their parents than for other children's parents.

It is more difficult, however, to observe one's neighbors; there is a prejudice in favor of keeping one's own affairs. It is true that we get invitations to their weddings, their parties and their funerals, and they tell us when they have bought a mahogany table at a bargain; but the really interesting things, the things which would enable us to identify them as we do the birds, these they generally take pains to conceal. Their good deeds they do by stealth; and we hear of them only long after; their sufferings they bear in private, and their follies they confide only to their wives, by whom they will occasionally be reminded of them, lest they forget.

There are people, however, even in our town, who pursue the study of their neighbors as eagerly and successfully as the most ardent ornithologist studies the birds. They can tell you not only the dates of arrival and departure of their neighbors' servants, but also why they departed. They know not only the kind of food and furniture provided for the family, but whether or not it is paid for. They know all about their neighbors' plumage, whether they moult annually or semi-annually, and whether the spring plumage is acquired as in the case of some birds, by a change of color without moult. If the editor of the Transcript wishes to provide his readers with something perennially interesting, the supply of which is not cut off by a backward spring, let him persuade one of these sharp-eyed people to furnish him with a weekly letter under the title, "Human Nature About Boston."

NATURE ABOUT BOSTON

IX.

BY RALPH HOFFMANN

To the other passengers it seemed only a sluggish ditch, issuing from a muddy swamp, and passing under the railroad into a sedgy meadow. But we knew that it was Elm Brook, and that beyond the sedgy meadow it passed under the Bedford road, and mingled its waters with the Shawsheen.

It was half-past eight on the morning of May 18, when we embarked from a convenient tussock of sedge. It was the kind of morning when the governor, if he were an ornithologist or a schoolboy, would announce a legal holiday, and take his canoe to Elm Brook. It had been overcast all the morning, but the sun was just beginning to find rifts in the clouds, through which misty light fell on distant hills. This was a signal for all the birds in the swamp, in the meadows and even in the streets of Bedford.

A small bush of rhodora, just coming into flower, was almost the first object that attracted our attention, after we were under way. We looked forward to many a field fringed with purple, but this single bush remained the only bit of the flower that we saw all day. The chief flower of the trip was undoubtedly sedge; it would be difficult to estimate the number of tussocks of this plant past which the Shawsheen idles; eighty-five hundred million seemed to us a moderate estimate. Each tussock was tipped with long dull-yellow heads, which if swept with a paddle, shook out a cloud of dusty pollen, which the south wind drifted on over the neighboring tussocks or into the stream itself. At fairly regular intervals a pair of redwing blackbirds rose with shrill outcries and protestations from some tussock, the male with blazing epaulets, the female brown and streaked, but quite as noisy.

Blue violets grew among the sedge, particularly where the border partook of the character of a meadow, tall-stemmed with a spot of darker blue in the centre. When the banks were quite firm colonies of anemone spread their white, wide-open flowers to the sun; before we ended our trip the flowers had closed and were nodding. The chief floral display was without question provided by the shad bush; all along the banks, as far ahead or behind as we could see, a cloud of white rested against the gray leafless woods. Each bush grows from the edge of the meadow to about the same height, and is completely covered with bloom, so that the repetition of the same color effect, at about the same height from the ground at more or less regular intervals, had the effect of a border, designed by nature.

We intended to take a train back from Ballardvale, whenever we got there; an elastic arrangement, but dependent after all on eventually reaching the spot. The distance on the map of the Geological Survey looked reasonably short, but we found out that, accurate as the survey doubtless had been in other respects,

it had utterly failed even to suggest the tortuous course of the Shawsheen through the sedge. When there is little fall in a river's course, it has not force enough to cut a straight channel, but swings from side to side, often turning back, and making loops of all descriptions. This was well enough for the morning, when our spirits were high, the sights and sounds novel and interesting and time no object; but as the sun began to decline and Ballardvale, as far as we could judge, was still only a remote possibility, the stream's irresolution began to wear on us. In places it seemed to have forgotten that a proper stream should have a well-defined course and main channel; it spread its waters aimlessly about, filled up lagoons with back water, and sent off little water-courses through gaps in the sedgy barrier. Whenever we could find one of these cut-offs, broad enough to let through our canoe, we stole a march on the river, and felt elated as we looked back at the long loop we had avoided.

For the most part there were few obstructions in the stream, but in one spot the bare trunk of a slender maple had fallen completely across the channel, and lay like a foot-bridge about two feet above the water. The banks were covered with almost impenetrable thickets not at all inviting to carry through. The forward man, therefore, conceived the plan of climbing the slender maple, and while balancing on its rather precarious support, forcing the bow of the canoe under the trunk, then slipping in again on the other side and allowing the rear man to repeat the manœuvre. But the bow of a canoe rises to a considerable height, and an empty canoe is very difficult to force downward any distance into the water. Everything would have been comparatively simple, however, had not a thrush at the very time when the situation had reached a critical moment appeared on the opposite bank, and run down to the mud to feed. The opera glasses had to be extracted and focussed; it was clearly not a veery, therefore either an olive-backed of a gray-cheeked thrush. The side of the head must settle the matter; the canoe, the maple, the ornithologist reclining like an anaconda, all had to wait till the thrush turned its cheek to the stream, was pronounced an undoubted gray-cheek, apparently the larger sub-species, on its way to Hudson's Bay, and then the task of navigating the Shawsheen was resumed.

There were not so many migrating warblers along the banks of the river as I had expected. In the white willows, spicy with blossoms, and full of the murmer of bees, were small bands of parulas, and while we lunched a company of migrants were literally taking their lunch, which is, however, part of a continuous performance, in the trees above us. There were two chestnut-sided warblers, a female redstart, a pair of black and white creepers and a black and yellow (magnolia) warbler, coming from what tropical forest, going to what New Hampshire glen?

Red-eyed vireos were established here and there, but I thought from the number that not all had yet come. At intervals of about a mile, we heard rose-breasted grosbeaks each putting all his heart into his song. The hoarse notes of tanagers in the pine groves, and the drumming of woodpeckers, were occasional sounds, and all through the gray birch on the hillsides Nashville warblers, to quote Mr. Torrey's amusing description, began their songs, got tired, and ended with "oh! fiddle, fiddle, fiddle." There were plenty of swallows, of course, yellow warblers and catbirds, but the main ornithological impression that I have of the trip is of the red-wing blackbirds, rising from the sedge, the male black with blazing epaulets, the female brown and streaked, both shrill and protesting.

From one boggy meadow I caught the absurd song of a Henslow's bunting, fleesie, delivered as one syllable. A little further on, a short-billed marsh wren was singing; these two species, both very local, are often associated. Their presence, like so much else, depends on the geological history of the region. A great valley is carved by a pre-glacial torrent, is then choked up and becomes a vast lake and now, ages after, some petty stream meanders through acres of sedge, and on some tussocks a Henslow's sparrow sits and delivers his ridiculous music.

In the latter part of our course we caught occasional glimpses of a great blue heron, which we disturbed at his frog-hunting. Long before we were aware of his presence he knew of ours, and rising majestically on gray black-tipped pinions, passed on down stream, so much faster than we that he had time to catch several frogs, even in his slow fashion, before we came up with him. I had supposed that we should in the same way put up, from the edge of the stream, many a "bill-engulphing" bittern, or catch sight of them, stealing off with humped back into the deeper sedge, but we saw none at all, and only as the shadows lengthened, heard one or two pumping in a distant part of the meadow.

For a mile or so above Burt's Crossing the level of the stream had been raised by a dam and then lowered within a few weeks. All along the banks the bushes were gray and water-stained, almost to their leafy tips; the broad stretches of grass and sedge were flat and discolored, and an odor that smelled like going in swimming after school came from the banks. Two species of sandpiper were feeding on these flats; one was our resident inland sandpiper, the spotted, the other, called the solitary, was on its way to its unknown northern breeding ground. Seeing the two together it seemed strange that I ever had trouble in distinguishing them; our bird is light brown, with broad white spots, which form a bar through the outspread wings, which he constantly holds curved like a bow; the other is dark blackish-brown, with white outer

tail-feathers, and wild, powerful strokes of its long-pointed wings. We saw in all nearly a dozen of the solitary sandpipers, four feeding close together and very tame.

A pair of blue-winged teal also sprang from the flats, and passing us, on their way up-stream, showed all their marks in the sunlight, the duck light brown, the drake with a bright, white crescent before the eye, and broad spaces of a delicate light blue on the wings.

Shortly after we passed the Wilmington bound stone, we came to the imposing ruins on which nearly a century ago, the Middlesex Canal carried freight from Boston to Lowell. There are two stone abutment walls, and one stone pier in the middle of the stream. They must be thirty feet high, and look all the more massive compared with the slender stream below. From the top of the piers the banks of the canal run off on each side, still sharply defined, but in the channel where once the barges passed, tall pitch pines and elms are growing. A deep semicircular depression in the top of the stone piers shows where the water, held in a wooden casing, like some gigantic trough, was led to its task, high over the idle and wanton Shawsheen.

The first yellow swallow-tailed butterfly is always a mark of a new season; when they come from their chrysalids, the early spring is over.

Some species of water insect too, about the size of a June beetle, had either just emerged from its pupa stage, if it has one, or else was about to mate, or for some other reason, best known to itself, was seeking to better its position in the world. We saw great numbers of this insect, each clinging to the top of a blade of sedge, from which it dropped quickly back into the water at our approach. It may be that they were simply taking the air, but at this time of year, it is safer to assume that such a passage from the element in which a creature is at home to another, is in some way closely connected with the great problem of multiplying and taking possession of the earth.

As we passed the road from Billerica to Burlington we were aware of a man perched on the cross trees of a telephone pole, where the sun could warm him or the breezes cool him, and where all the odors from the willow catkins and the other pollen-bearing plants could assail him. But with him, too, it was business, not pleasure, that had carried him to what seemed to us an enviable eminence. He suddenly produced a receiver (Is there one hanging at the top of each telephone pole?) and began a conversation with a fellow linesman who, he told us, was perched on another pole a mile away.

We passed very few human beings in the course of the day. While we were at lunch, a collie, who ought to count as a human being, discovered us, and very kindly shared my dessert with me. His master turned up later, and asked us what luck we had had. We explained that we had found everything that we had come for, and could therefore answer truthfully, the best in the world. Whether there were any fish to be caught, we could not say. We passed several fishermen, but none would confess to having caught anything. One had a lantern hung to a bush beside him, evidence that he was going home late in the evening, and that he was engaged in what some of the boys with whom I went to school called "paoutin'."

How long it takes a canoe to get from Bedford to Ballardvale I cannot say; it was half-past six when we reached Lowell Junction, and we were assured that the river beyond that point had by no means overcome its tendency to evasion and double dealing. We "took out," therefore, at Lowell Junction, and after carrying the canoe over a barbed wire, up a steep railway embankment, and along an eighth of a mile of track, were ready to believe that a canoe goes better in the water than on land. The arc lights had been burning for some time when I reached home. I counted under one over a hundred June beetles that had flown against the globe and fallen to the ground. The forces that had impelled the water insects to mount their blades of sedge were evidently still at work in the warm May night.

May 29, 1907.

NATURE ABOUT BOSTON

X.

BY RALPH HOFFMANN

The Public Garden in May comes very near to the ornithologist's idea of heaven. Not that he is particularly partial to beds of red tulips with magenta borders, nor because he derives any great pleasure from the contemplation of municipal statuary. The point is to find a circumscribed area where flowering trees and shrubs furnish cover and food to the migrating birds, and where the surrounding wilderness of houses keeps them in one little haven of refuge. Under certain conditions one can find in such oases trees which resemble that on the Audubon chart, where the delighted eye passes from species of comparative to those of absolute rarity, ending with perhaps a Cape May warbler, preening his plumage on a leafless branch.

I have had no opportunity to visit the Public Gardens this month, but rumors of its attractions have reached me, and I am prepared to receive from more fortunate correspondents accounts of the treasures which it has contained. I have gone each morning to my task, like Ulysses passing the enchanted isle, and given no heed to the voices of the sirens. There have been times when my resolution has been put to a severe test. Wednesday, May 22, seemed to be the high tide of bird migration in this vicinity. How

grateful bird students would be if the colonies had only been moved to declare their independence a month and a half earlier, and the 4th of July came on May 22!

I did hear one bird that morning on my way to the train, with which I hope to confound more fortunate observers when they attempt to irritate me by an account of their successes.

Parulas, of course, were everywhere, and in my neighbor's evergreens I heard the cheerful interrogative of a black and yellow warbler. Then came a little spluttering performance which at first puzzled me, but in a moment I remembered the song of the Wilson's blackcap. His cousin, the Canada warbler, was in the same tree, a sycamore maple, which, by the way, I can recommend to all bird lovers, for its leaves are inhabited by multitudes of aphides which are extremely attractive to migrating warblers. An olive-backed thrush and a water-thrush were singing in the next yard, their songs seeming strangely out of place where there were neither dark spruces nor swampy lowland. All these birds, however, though charming, would, I knew, be of no avail against the person who, after a whole morning's search, would attack me with one prize after another. Just then a song, beginning like a black poll's, but changing quickly to a higher key and increasing in rapidity, brought me hurriedly to a line of larches, from which the sound came. One glance at the whitish underparts, the olive-green back and the sharp, slender bill identified the singer as the Tennessee warbler, one of the four so-called rare warblers—rare, that is, in eastern Massachusetts. The other three are the bay-breasted, the Cape May and the Mourning. The blackburnian, though always a prize, is to be expected in greater or less numbers every year by anyone who is out a great deal in a country where migrants abound.

A lover of birds is on the watch for them at all times. He notes some interesting song, even when apparently absorbed in a friend's conversation; in the agony of a dentist's chair, I have known a migrating hawk to bring solace and relief. In the last fortnight I have experimented with the automoblie as an observatory for birds, and I have come to the conclusion that I prefer an ox cart. When the automobile stops for half an hour, to replace a punctured tire, if a wise choice is made as to the kind of country where the puncture occurs, a good deal can be heard, but at the ordinary rate of speed, which is easily found by multiplying the speed limit of any town by two, the list of birds is confined to those who feed in or near the road, and are startled by the approaching machine, and to those who inhabit open fields and are conspicuous at a distance. Bay-winged buntings fly from the dust to the trees at the roadside, thrashers and chewinks hurry across and into cover, while bobolinks and kingbirds show black and white over the grass. A few high-pitched notes may be heard over the rumble of the car just as they penetrate in summer through the open windows of a train. Red starts, yellow warblers and yellow-throated vireos have voices that carry well, and my only prairie warbler this spring delivered his rasping crescendo from a scrub oak wilderness through which an automobile was hurrying me.

A long trip in a motor-car carries one past many a dignified old farmhouse, its doorstep shaded by tall, drooping elms, over bridges under which some modest stream suggests a long course of swamp and meadow for a canoeist's holiday. It takes one, too, past many a village green, where the old civilization is fighting a losing battle with the new. In the centre of every common stands a soldiers' and sailors' monument each more hideous than the last, and after seeing so many in one day, one realizes more than ever what a misfortune our Civil War has been.

The eye, in a long ride, enjoys a succession of the most varied beauties, but we are hurried past without a chance to distil from the contemplation of each lovely scene its true measure of delight. It is only the distant prospect as a rapidly changing panorama that we can take in the tender green of the birches relieving the dark masses of some cedar-covered hillside, or a distant drumlin over whose slopes highbush blueberries have spread a dozen nameless shades of pink.

Each tree on a distant hillside is distinguished now from its neighbor by some delicate diversity of tint. "Verweile doch, du bist so schön," must have been in many minds during this past week. Everything has an air of freshness, and innocence and hopefulness. Nature's mood at this season is like our own at the beginning of a new day. All former failures and defeats are forgotten; droughts and floods, the ravages of insects and of time, though hitherto the common heritage of successive years, seem in the flush and confidence of spring, less inevitable. Who knows whether the golden age may not at last be about to return?

June 5, 1907.

NATURE ABOUT BOSTON

XI.

BY RALPH HOFFMANN

A little uncertainty sometimes adds zest to an expedition. It is often pleasant to start off undecided as to one's goal, ignorant of the route and careless of the means of transportation. A canoe trip which I had planned for May 30 began with enough vagueness as to certain important details to promise well. The canoe, according to the freight receipt in my pocket, was in North Wilmington, which I had been told was at the head of navigation on the Ipswich River. The map of the Geological Survey, however, showed a North Wilmington, not on the Ipswich River but on Martin's Brook, on another division of the Boston & Maine. Railroad officials assured me that this North Wilmington of the Government maps was in point of

faet Brown's Crossing, and that my canoe was undoubtedly in the present North Wilmington and therefore on the Ipswich River. But the only train from Boston that started early enough in the morning to suit a canoeist, stopped neither at the present nor at the former North Wilmington, but at Wilmington Junction, two miles from eaeh of them, and then only if some one desired to board it; whether any one wanted to get off made no difference. Nobody lives in Wilmington Junetion; it is merely a point where three railroads eross. As we approaehed the station, we were relieved to feel the pressure of the brakes, and a moment later, we had stepped out of the train into a region of white cedar swamps, purple rhodora and Maryland yellow-throats. Long, straight stretches of track led off in five different directions. Our train disappeared along the northward stretch; the two traeks from the west erossed the swamps in which the Ipswieh River had its source; on one of the other two our eanoe, freighted with all the possibilities of a day's journey in an unknown land, awaited us.

Renewed inquiries of the station agent confirmed us in our belief that North Wilmington was not North Wilmington and that something else was. The agent, however did his best to inject new uneertainties into our prospects by announcing that, as far as he knew, the Ipswich River was about two miles from the real North Wilmington, and therefore two miles from our canoe. A two miles carry of a hundred pound canoe! But in less than three-quarters of an hour after this dismal propheey, we were pushing off in the Ipswich itself, where, hardly more than a brook, it wanders through its first meadow, white with houstonia, and ruddy with young clumps of royal fern.

In hilly country the brooks brawl along over stony beds, and the roads which follow them give continual glimpses of the foaming water, leaping into a quiet pool, sliding along a long shelving rock, or dancing above a shingly bed. Here a canoe could not go its own length without striking some great stone which the brook in its spring floods had rolled down from the hills.

In Eastern Massachusetts the watersheds are often only a few feet above the valley on either side, so that the streams are navigable for a canoe as soon as they pass from the swamps in which they have their birth. The only obstructions are the alders and osiers, which grow out into the stream itself, instead of on its banks. There is hardly a stone; the brook is always deep, though so narrow that with the paddle one can touch the turf on either hand. The valley through which such a stream meanders is often perfeetly level for half a mile on eaeh side. There are no banks, properly speaking, no slopes down which tributary streams hurry from the enclosing hills. The bank is the "river-lip, fledged with tender green," and in the early eourse of the stream, we pass so elose to it that we can note every detail of the herbage whieh clothes it.

A man in a eanoe sees the country from a new point of view. A traveller on the high road passes the front yards, so to speak, of everything. He sees the better drained portions of the fields, the bobolink and not the red-winged blackbird side of country life. Even when the road crosses a swamp, and he sees the slow stream pass silently under the bridge, he gets only a hint of scenes with whieh the canoeist is brought face to face for miles. Only a fisherman, wading the grassy lagoons where the pickerel hide, or casting for a possible trout in the boggy meadows, sees the country, like the canoeist, from the muskrat point of view.

A canoeist becomes, like a phœbe, an authority on bridges. He passes under a dozen during a morning, no two of which are alike. Now it is a modern structure of cement under a piece of State road, again the old fashioned wooden bridge of our forefathers with high sides painted red like a farmer's barn. One bridge under which we just managed to pass was built in the style of Stonehenge; enormous stone blocks rough hewn, were laid across stone piers so near the water that we had to crouch in the bottom of the canoe to get under. Even then the bow of the canoe struek against a ridge in the stone, and only after pushing the eanoe with our hands from side to side, we found at last a portion of the block where the ridge was a little lower, and let the bow pass by what seemed a hair's breadth.

In the heart of a little grove that separated two farms on opposite banks of the stream, we passed a bridge formed of a single tree trunk, along the sides of which a hand rail had been fastened. The tree lay between high banks over a quiet pool; a little path led from eaeh end of the bridge through the silent grove to the distant farms. If the old trunk could have told what feet had passed over it, what a commentary we might have had on life on a New England farm. Of all the figures with whieh the imagination peopled the now silent spot, one group, I am sure, would be called forth by the very romanee of the woodland seene; the two farms may very likely have held Capulets and Montagues; but at some period of their mutual history, a path must have led over this bridge straight from one heart to another.

From time to time there was a marked change in the eharacter of the vegetation through which the brook, like Camus, footed slow, due either to some change in the nature of the soil, or to the difference in the drainage. Once we wound for nearly half an hour through an immense area of reed-like grass; the new growth of broad, green blades and stout canes was pushing slowly up, and above it tall clusters of last year's stalks rattled in the wind. Short-billed marsh wrens inhabited this reedy growth: we heard their shrill notes here and there in the distanee. At last we caught sight of one, perched on a stout stalk, his little tail bent over his baek till it nearly touched his head, and his whole body quiv-

ering with the delivery of his song. At our approach he slipped into the lower recesses of the tangled grass, from which we could still hear his song, like the subdued muttering of a peevish child.

My companion was much interested in the wren, and in fact showed symptoms of incipient bird fever. He was charmed by the mazy dance which countless swallows all day executed over the grassy meadows. His inquiries, though extremely intelligent and showing excellent powers of observation, betrayed unfamiliarity with the technical terms of ornithology. He watched a barn swallow take either a sip of water or an insect from the surface and remarked on the way the bird's "lower lip" hung down, like a whippoorwill's. If the swallows had been procured as laboratory material they could not have given a better exhibition for a student. There were four species constantly about us, and they turned, and passed and repassed, showing back and rump, and forehead and throat in every position and light. Many of them, were, I suppose, late migrants. I can hardly believe that the Ipswich valley supports such numbers as we saw. The great attraction for the swallows seemed to be a flight of the smallest midges imaginable, which hovered in myriads close over the surface of the water. I should think that it would be discouraging to take in food in such small quantities; a swallow must have to collect a dozen or more of these tiny insects before he can tell that he is eating anything.

We passed a sand bank at the edge of one swallow-covered meadow, the steep sides of which seemed to interest the sand swallows, and was perhaps to be their breeding place. Half a dozen of them left the dance from time to time, and flew to that part of the bank directly under the turf, where it presented a perpendicular, damp face. Here one hole had already been dug to the depth of about four inches. One of the swallows repeatedly lighted at the edge of this hole, and clung there with its feet, supporting itself by pressing its outspread tail against the bank. Another swallow always alighted beside it, also grasping the edge of the hole and spreading its tail below. There the two clung, looking into the hole, or from side to side, lifting their long, pointed wings high over their heads, or finally flying off over the meadow. The others fluttered about the fortunate pair, like brown bees, or clung to the steep face of the bank, or rested on the loose sand below. Once a cliff swallow clung for a moment with them. Was it a mere social impulse, or the stirring of some instinct inherited from his cliff-dwelling forefathers on the steep bluffs of the Missouri?

Besides the migrant swallows, if they were migrants, one solitary sandpiper and a pair of least sandpipers, we saw only four species of migrants—one blackpoll, one Wilson's blackcap, one Canada warbler and four water thrushes. There has been a very poor blackpoll migration this spring, or else they have gone by in silence; there have been none of those warm days when the sharp, high notes of blackpolls rise and fall in every tree.

The spring migration was just coming to a close, but it covers so long a period, over two months, that the early arrivals are well along toward the fulfilment of their desires; some indeed have already launched a young brood into the world. As we came quietly around a turn in the river nine young black ducks, who were swimming in the middle of the stream, started off in alarm, almost running on the surface of the water, and crying as if all the duck hawks in New England were after them. Suddenly there was a splash, and one disappeared, another splash and another vanished, until only three were left. These hurried into a sheltering clump of button bushes, which bordered the stream. I did not know before that little black ducks could or would dive, but these certainly did, coming up no doubt close to the bank, and hiding there till all was silent, and a low quack from their mother called them out again. We saw nothing of either parent.

Among the land birds, too, the problems of house hunting and housekeeping and the feeding of young were being solved in every orchard and thicket. We passed a farmyard where a white-bellied swallow had captured a long white downy hen's feather, and was struggling with it toward an apple tree, where it was to be the lining for some deserted woodpecker's hole. The wind blew the feather about her head, so that she seemed covered with a boa, or a travelling veil. A farmer was ploughing near by, among some apple trees, from the branches of which a pair of bluebirds scanned the upturned soil. When they found a grub they dropped upon it with the characteristic flutter of their wing-tips, and then flew far off across the meadows to a distant nest, returning after a time to follow the plough.

While we were watching the bluebirds a female Grosbeak flew over us toward a thicket at the edge of the river. There was something in the directness of her flight that said, as plainly as if she carried a market basket, that she was either going directly to her nest or after building material. She lit first in a small tree, and then after a moment dropped to the ground. A little later she again passed over our heads with a bill full of small twigs or rootlets, and flew to another thicket two or three hundred yards away.. Why did she get her building material so far away from her nest? Was it from an instinct of caution, or had she discovered some especially suitable material in the spot which she was visiting?

For some time before we approached North Reading we had been hearing the dull boom of a distant drum, and occasional shrill bursts of music, and as we passed under the bridge at North Reading itself we had before us the whole line of a Memorial Day procession. There was a barge for the veterans, veterans now in every sense, and another barge full of the white dresses and gay ribbons of a schoolgirl choir.

Behind these walked a varied company, the whole population apparently of all the surrounding country. Farmers and

their wives, young men and their prospective wives, young mothers pushing baby carriages before them, and groups of little boys, washed and brushed and stiffly conscious of their best clothes. The whole cavalcade had a rural look; in the dress, and the manner of the people there was absolutely no suggestion of the rowdyism which in the neighborhood of cities too often robs our patriotic festivals of any suggestion of seemly reverence. The band played the old camp songs, and the old men and the little children sang together. For half an hour we could see the bright dresses pass in and out of the trees, as the procession climbed slowly to the hillside cemetery. We heard the band play "Nearer, My God to Thee," and at last a bugle sounded "taps." We could see in imagination the bared, bowed heads of the veterans, as they stood at the graves of old comrades. My companion and I paddled on, better men for the sight which we had seen, and I for one was prepared to pass any number of soldiers' monuments, with no other feeling than respect for the spirit of the communities which had erected them.

The first of June marks the close of an ornithologist's spring. The last migrants have passed; the first white daisy on some railroad embankment warns him that another summer has begun. From the first bluebird in early March to the last blackpoll in June, what a varied company have dropped from the darkness into our groves and dooryards, and after a little stay passed on. Those of us who know and welcome them have been living a richer life for the past ten weeks than our less fortunate friends. And yet, if there were no migrant birds, no rarities over which to grow excited, the return of our own native birds, the bursting and blooming of bird and flower, the greening of the fields, and our own indefinable quickening of life has made the season just past the essential part of a new year. To have shared my own pleasure in this happy season with known and unknown friends has been in itself an added pleasure.